

Amendment to the Claims

Please amend the claims as follows. A marked-up version of the amended claims, showing the changes made thereto, is included in Exhibit A.

1. A water current measuring system comprising:

an ROV;

an ADCP coupled to the ROV; and

a computer system for receiving and processing ADCP data and ROV data and displaying processed data in real time as the ADCP and ROV are moving in the vertical direction through a water column;

wherein the processed data includes depth and heading data from the ADCP data if such depth and heading data is of a sufficient quality.

8. A method for processing water current measurements in real time, comprising the steps of:

receiving depth and heading data from ROV;

receiving from an ADCP as the ADCP is moving in the vertical direction through a water column water current velocity data associated with depth cells within a water column;

receiving depth and heading data from the ADCP if the depth and heading data of the ADCP is substantially free of interference;

processing the current velocity data from each depth cell into data associated absolute depth;

assigning absolute depth data to virtual bins;

A1

A2

Cond'l